

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

75 Hawthorne Street San Francisco, CA 94105-3901

Date: 03/15/00

### **MEMORANDUM**

Transmittal of Data SUBJECT:

Vance S. Fong, P.E., Manager From:

TO: Craig Cooper, Remedial Project Manager

HI/NV/CA Cleanup Section, SFD-7-4

The QA Office is providing you the attached data validation reports completed by our data validation contractor (Data Val, Inc.). The Quality Assurance Office has not reviewed the validation reports. If you have any question pertaining to the content of the attached reports, please contact Dawn Richmond of the QA Office at 744-1494.

Attachments

cc: Brenda Bettencourt, PMD-2



## **MEMORANDUM**

TO:

Craig Cooper

Remedial Project Manager, SFD-7

FROM:

Donna Breaux DB 2/7/00

Senior Reviewer DataVal, Inc.

DATE:

January 26, 2000

SUBJECT:

Review of Analytical Data

Attached are comments resulting from DataVal, Inc. review of the following analytical data:

SITE:

Newmark Source OU Superfund

SITE ACCOUNT NO.:

CERCLIS I.D. NO.:

CAD981434517

CASE NO.:

R99S30

J5

SDG NO.:

99111D

LABORATORY:

EPA Region 9 Laboratory, Richmond, CA

ANALYSIS:

Perchlorate

SAMPLE NO.:

20 Water Samples (See Case Summary)

COLLECTION DATE: April 15, 20, 21, and 22, 1999

**REVIEWER:** 

Lisa Norosky, DataVal, Inc.

If there are any questions, please contact Donna Breaux (DataVal, Inc.) at (415) 459-3124, or Marlon Mezquita (QA Office/EPA) at (415) 744-1499.

#### Attachment

TPO: [ ]FYI [ ]Attention [ ]Action

SAMPLING ISSUES: [ ]Yes [X ]No



**Data Validation Report** 

Case No.:

R99S30

Site:

Newmark Source OU Superfund

Laboratory:

EPA Region 9 Laboratory (R9)

Reviewer:

Lisa Norosky, DataVal, Inc.

Date:

January 26, 2000

#### I. Case Summary

SAMPLE INFORMATION:

SAMPLE #:

50084, 50083, 50075, 50079, 50080, 50081,

50078, 50063, 50064, 50000, 50001, 50002, 50003, 50004, 50005, 50048, 50050, 50051,

50052, and 50053

COLLECTION DATE:

April 15, 20, 21, and 22, 1999

SAMPLE RECEIPT DATE:

April 21 and 23, 1999

CONCENTRATION & MATRIX: Low Level Water

FIELD QC:

Field Blanks (FB):

50081 and 50052

Equipment Blanks (EB):

None.

Background Samples (BG):

None. 50079 and 50080

Duplicates (D1):

50050 and 50051 (D2):

LABORATORY OC:

Matrix Spike:

50079

Duplicates:

50079

ICP Serial Dilution: N/A

ANALYSIS: Perchlorate

METHOD BLANKS AND ASSOCIATED SAMPLES:

LRB AB22066: 50084, 50083, 50075, 50079, 50080, 50081,

50078, 50063, 50064, 50000, 50001, 50002, 50003, 50004, 50005, 50048, 50050, 50051,

50052, and 50053



## Sample Preparation

<u>Analyte</u>

**Digestion Date** 

**Analysis Date** 

Perchlorate

Not Applicable

April 26 and May 13, 1999

Percent Solids Not Applicable

TPO ACTION:

None.

TPO ATTENTION:

None.

**SAMPLING ISSUES:** 

None.

## **ADDITIONAL COMMENTS:**

All method requirements specified in the EPA Contract Laboratory Program (CLP) Inorganic Statement of Work (SOW) have been met.

The analytical results with qualifications are listed in Table 1A. The definitions of the data qualifiers used in Table 1A are listed in Table 1B. This report was prepared in accordance with the EPA Contract Laboratory Program Inorganic Statement of Work (ILM04.0); and the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," February 1994.



## II. Validation Summary

The data were evaluated based on the following parameters:

	<u>Parameter</u>	Acceptable	Comment
1. 2. 3.	Data Completeness Sample Preservation and Holding Times Calibration a. Initial Calibration Verification b. Continuing Calibration Verification c. Calibration Blank d. CRDL Standard	Yes Yes Yes	
4.	Blanks a. Laboratory Preparation Blank b. Field Blank c. Equipment Blank	Yes	
5.	ICP Interference Check Sample Analysis	N/A	
6.	Laboratory Control Sample Analysis	Yes	
7.	Spiked Sample Analysis	Yes	
8.	Laboratory Duplicate Sample Analysis	Yes	
9.	Field Duplicate Sample Analysis	Yes	
10.	<ul> <li>GFAA QC Analysis</li> <li>a. Duplicate Injections</li> <li>b. Analytical Spikes</li> <li>c. Method of Standard Addition</li> </ul>	N/A	
11.	ICP Serial Dilution Analysis	N/A	
12.	Sample Quantitation	Yes	
13.	Sample Result Verification	Yes	

N/A = Not Applicable

## III. Overall Assessment of Data

All of the method requirements specified in the EPA Contract Laboratory Program (CLP) Inorganic Statement of Work (SOW) have been met. The reported results for perchlorate in all of the samples were appropriately and correctly calculated.

# ANALYTICAL RESULTS TABLE 1A

Case Number: R99S30

Site: Newmark Source OU

SDG: 99111D

Reviewer: Lisa Norosky, Data Val, Inc.

Date: 01/26/00

Analysis: Perchlorate Matrix: Water

Station Location	MUNI-24	Ĭ	$\neg \top$		MUNI-22					MUNI-13				MUNI-16	Ī	-		MUNI-16				,
Sample 1D	50084				50083	1				50075				50079				50080				
Lab Sample ID	AB22053				AB22054	1				AB22055				AB22056				AB22057				
Date of Collection	04/20/99		İ		04/20/99					04/20/99		İ		04/20/99		1		04/20/99				1
Units	ug/L				ug/L	1				ug/L				ug/L				ug/L				-
Analyte	Result	Q	Val	Com	Result	Q	Val	Com		Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Vı	Corr	
Perchlorate	5	U			5	U			i	5	U	l		5	U	l	الماسات	5	U	$\mathbb{L}_{-}$		≟

Q-Laboratory Data Qualifiers

Val-Validity; Refer to Data Qualifiers in Table 1B

Com-Comments; Refer to the Corresponding Section in the Narrative for each letter

N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc. - Field Duplicate Pairs FB-Field Blank, EB-Equipment Blank, TB-Trip Blank

BG-Background Sample

							_												
Station Location	MUNI-16	i			MUNI-14		1		CJ-6				CJ-16				MW01A		1 '
Sample 1D	50081		İ		50078	-			50063				50064				50000		
Lab Sample ID	AB22058	1			AB22059		i		AB22060			-	AB22061				AB22062		
Date of Collection	04/20/99				04/20/99	1	-		04/15/99				04/15/99		· · ·		04/20/99		
Units	ug/L				ug/L		1		ug/L				ug/L				ug/L		1
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q Va	1 Com
Perchlorate	5	υ			5	U			5	U			5	U			5	U	1

Q-Laboratory Data Qualifiers

Val-Validity, Refer to Data Qualifiers in Table 1B

Com-Comments; Refer to the Corresponding Section in the Narrative for each letter

N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc. - Field Duplicate Pairs FB-Field Blank, EB-Equipment Blank, TB-Trip Blank BG-Background Sample

Station Location	MW01B		Τ		MW01C		ĺ	T	MW01D	1			MW01E	Ĭ	•	I	MW01F			
Sample ID	50001				50002		Ì		50003				50004				50005			
Lab Sample ID	AB22063				AB22064		1		AB22065				AB22122	1			AB22123			
Date of Collection	04/20/99				04/20/99				04/20/99				04/21/99		;		04/21/99			
Units	ug/L				ug/L	:			ug/L				ug/L				ug/L		1	
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val C	om
Perchlorate	5	U			5	U	$\Gamma$		5	U			5	U			5	ប់		

Q-Laboratory Data Qualifiers

Val-Validity, Refer to Data Qualifiers in Table 1B

Com-Comments; Refer to the Corresponding Section in the Narrative for each letter

N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc. - Field Duplicate Pairs FB-Field Blank, EB-Equipment Blank, TB-Trip Blank BG-Background Sample

Station Location	MUNI-7B	İ			MUNI-9B	,				MUNI-9B				MUN1-9B				MUNI-9C			
Sample ID	50048				50050				1	50051				50052	,			50053			
Lab Sample ID	AB22124				AB22125					AB22126				AB22127	1		:	AB22128		ļ.	
Date of Collection	04/22/99		1		04/22/99				1	04/22/99	1			04/22/99	1			04/22/99			
Units	ug/L				ug/L					ug/L	ł			ug/L	į			u <b>g/</b> L		1	:
Analyte	Result	Q	Val	Com	Result	Q	Vai	Com	1	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Perchlorate	5	Ū			5	U				5	U			5	U		l	5	U	L'	

Q-Laboratory Data Qualifiers

Val-Validity, Refer to Data Qualifiers in Table 1B

Com-Comments, Refer to the Corresponding Section in the Narrative for each letter

N/A-Not Applicable, NA-Not Analyzed

Station Location	Method Blank		1		N/A
Sample 1D	LRB	1	į	İ	QL
Lab Sample ID	. AB22066	;			N/A
Date of Collection	N/A		1		N/A
Units	ug/L				ug/L
Analyte	Result	Q	Val	Com	Result
Perchlorate	5	U	-		5

FD1, FD2, etc - Field Duplicate Pairs FB-Field Blank, EB-Equipment Blank, TB-Trip Blank BG-Background Sample

Filename: 99111D.Cl04.123

#### **TABLE 1B**

## DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," February 1994.

- U The analyte was analyzed for, but was not detected above the level of the reported value. The reported value is either the sample quantitation limit or the sample detection limit for all the analytes except Cyanide (CN) and Mercury (Hg). For CN and Hg, the reported value is the Contract Required Detection Limit (CRDL).
- L Indicates results which fall between the sample detection limit and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The associated value is an estimated quantity. The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.
- R The data are unusable. The analyte was analyzed for, but the presence <u>or</u> absence of the analyte can not be verified.
- UJ A combination of the "U" and the "J" qualifier. The analyte was analyzed for but was not detected. The reported value is an estimate and may be inaccurate or imprecise.

# **INORGANIC REGIONAL DATA ASSESSMENT**

CASE NO. <u>R99S30</u>	_LABORATORY _	R9
SDG NO. <u>99111D</u>	_SITE NAMEN	ewmark Source OU Superfund
SOW N/A	_REVIEW COMPL	ETION DATE January 26, 2000
REVIEWER <u>DataVal</u> , Inc.	_REVIEWER'S NA	ME <u>Lisa Norosky, DataVal, Inc.</u>
NO. OF SAMPLES 20 WATER	SOIL OTH	ER
		Perchlorate
1. PRESERVATION AND HOLDI	NG TIMES	<u>O_</u>
2. CALIBRATION		<u>O</u>
3. BLANKS		<u>O</u>
4. ICP INTERFERENCE CHECK	SAMPLE (ICS)	N/A
5. LABORATORY CONTROL SA	MPLE (LCS)	<u>O</u>
6. DUPLICATE ANALYSIS		<u>O</u>
7. MATRIX SPIKE ANALYSIS		<u>O</u>
8. METHOD OF STANDARD AD	DITION (MSA)	N/A
9. ICP SERIAL DILUTION		N/A
10. SAMPLE QUANTITATION		<u>O</u>
11. SAMPLE VERIFICATION		<u>O</u>
12. GFAA ANALYTICAL SPIKE		N/A
13. OVERALL ASSESSMENT		<u>o</u>

O = Data have no problems or problems that do not affect data quality. X = Data are qualified due to minor problems.

M = Data are qualified due to major problems.

Z = Data are unacceptable.

N/A = Not Applicable.

TPO ACTION: None.

TPO ATTENTION: None.

AREAS OF CONCERN: None.



## <u>MEMORANDUM</u>

TO:

Craig Cooper

Remedial Project Manager, SFD-7

FROM:

Donna Breaux DB 2/7/00

Senior Reviewer DataVal, Inc.

DATE:

January 26, 2000

SUBJECT: Review of Analytical Data

Attached are comments resulting from DataVal, Inc. review of the following analytical data:

SITE:

Newmark Source OU Superfund

SITE ACCOUNT NO.: J5

CERCLIS I.D. NO.:

CAD981434517

CASE NO.:

R99S30

SDG NO.:

99113C

LABORATORY:

EPA Region 9 Laboratory, Richmond, CA

ANALYSIS:

Perchlorate

SAMPLE NO.:

19 Water Samples (See Case Summary)

COLLECTION DATE: April 20, 21, 26, and 27, 1999

**REVIEWER:** 

Lisa Norosky, DataVal, Inc.

If there are any questions, please contact Donna Breaux (DataVal, Inc.) at (415) 459-3124, or Marlon Mezquita (QA Office/EPA) at (415) 744-1499.

Attachment

TPO: [ ]FYI [ ]Attention [ ]Action

SAMPLING ISSUES: []Yes [X]No



## Data Validation Report

Case No.:

R99S30

Site:

Newmark Source OU Superfund EPA Region 9 Laboratory (R9)

Laboratory: Reviewer:

Lisa Norosky, DataVal, Inc.

Date:

January 26, 2000

#### I. Case Summary

## SAMPLE INFORMATION:

50038, 50039, 50040, 50041, 50047, 50046, SAMPLE #:

> 50045, 50044, 50033, 50032, 50031, 50024, 50025, 50026, 50027, 50023, 50022, 50010, and

50011

COLLECTION DATE:

April 20, 21, 26, and 27, 1999

SAMPLE RECEIPT DATE:

April 23 and 28, 1999

CONCENTRATION & MATRIX:

Low Level Water

FIELD OC:

Field Blanks (FB):

50040

Equipment Blanks (EB): None.

Background Samples (BG):

None.

Duplicates (D1):

50038 and 50039

LABORATORY QC:

Matrix Spike:

50038 and 50024

Duplicates:

50038 and 50024

ICP Serial Dilution:

N/A

#### METHOD BLANKS AND ASSOCIATED SAMPLES:

LRB AB22141: 50038, 50039, 50040, 50041, 50047, 50046,

50045, 50044, 50033, 50032, 50031, 50024, 50025, 50026, 50027, 50023, 50022, 50010, and

50011

ANALYSIS: Perchlorate



## Sample Preparation

**Analyte** 

**Digestion Date** 

Analysis Date

Perchlorate

Not Applicable

April 26 and May 3, 1999

Percent Solids

Not Applicable

**TPO ACTION:** 

None.

TPO ATTENTION:

None

**SAMPLING ISSUES:** 

None

#### **ADDITIONAL COMMENTS:**

All method requirements specified in the EPA Contract Laboratory Program (CLP) Inorganic Statement of Work (SOW) have been met.

The analytical results with qualifications are listed in Table 1A. The definitions of the data qualifiers used in Table 1A are listed in Table 1B. This report was prepared in accordance with the EPA Contract Laboratory Program Inorganic Statement of Work (ILM04.0); and the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," February 1994.



# II. <u>Validation Summary</u>

The data were evaluated based on the following parameters:

	<u>Parameter</u>	Acceptable	Comment
1. 2. 3.	Data Completeness Sample Preservation and Holding Times Calibration a. Initial Calibration Verification b. Continuing Calibration Verification c. Calibration Blank d. CRDL Standard	Yes Yes Yes	
4.	Blanks a. Laboratory Preparation Blank b. Field Blank c. Equipment Blank	Yes	
5.	ICP Interference Check Sample Analysis	N/A	
6.	Laboratory Control Sample Analysis	Yes	
7.	Spiked Sample Analysis	Yes	
8.	Laboratory Duplicate Sample Analysis	Yes	
9.	Field Duplicate Sample Analysis	Yes	
10.	<ul><li>GFAA QC Analysis</li><li>a. Duplicate Injections</li><li>b. Analytical Spikes</li><li>c. Method of Standard Addition</li></ul>	N/A	
11.	ICP Serial Dilution Analysis	N/A	
12.	Sample Quantitation	Yes	
13.	Sample Result Verification	Yes	

N/A = Not Applicable

## III. Overall Assessment of Data

All of the method requirements specified in the EPA Contract Laboratory Program (CLP) Inorganic Statement of Work (SOW) have been met. The reported results for perchlorate in all of the samples were appropriately and correctly calculated.

#### ANALYTICAL RESULTS TABLE 1A

Case Number: R99S30

Site: Newmark Source OU

SDG: 99113C

Reviewer: Lisa Norosky, Data Val, Inc.

Date: 01/26/00

Analysis: Perchlorate Matrix: Water

Station Location	MW-128B				MW-128B	Τ-	Τ		MW-128	В		ī	MW-128C	T —			MW-130C			· · · · · · · · · · · · · · · · · · ·
Sample ID	50038		. 1		50039	1		:	50040				50041				50047			
Lab Sample ID	AB22129				AB22130				AB2213	1		1 :	AB22132		.		AB22133			
Date of Collection	04/21/99		. !		04/21/99			1	04/21/99	.		1 1	04/21/99		1 1	}	04/21/99		,	
Units	ug/L	ļ			ug/L			l	ug/L			1 1	ug/L	:	1	Į	ug/L			l į
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Perchlorate	5	ับ			5	U			5	υ	Ī	•	5	U			5	U		

Q-Laboratory Data Qualifiers

Val-Validity; Refer to Data Qualifiers in Table 1B

Com-Comments, Refer to the Corresponding Section in the Narrative for each letter

N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc. - Field Duplicate Pairs FB-Field Blank, EB-Equipment Blank, TB-Trip Blank

BG-Background Sample

Station Location	MW-130B	,			MW-130A		Τ			MW-129C		Τ		MW11C		Τ		MW11B	T		
Sample ID	50046				50045	1				50044			I	50033	1			50032			
Lab Sample 1D	AB22134				AB22135	ı	1			AB22136				AB22137		1		AB22138			
Date of Collection	04/21/99				04/21/99		i			04/22/99		1		04/21/99	-			04/21/99	1		
Units	ug/L	i	1		ug/L	1				ug/L	1			ug/L		,	1	ug/L	1		ı
Analyte	Result	Q	Val	Com	Result	Q	Vs	u C	Com	Result	Q	Val	Com	Result	∣Q	Val	Com,	Result	Q	Val	Com:
Perchlorate	5	U			5	υ	1			5	υ		1	5	υ	-	1	5	υ		

Q-Laboratory Data Qualifiers

Val-Validity; Refer to Data Qualifiers in Table 1B

Com-Comments, Refer to the Corresponding Section in the Narrative for each letter

N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc. - Field Duplicate Pairs FB-Field Blank, EB-Equipment Blank, TB-Trip Blank

BG-Background Sample

Station Location		MWIIA				MW08B					T	A80WM	1		ļ — — —	MW09A	ү			MW09B			
Sample ID		50031	+	1 i		50024		i				50025	i	i		50026				50027	i		! .
Lab Sample 1D	!	AB22139		: 1		AB22145						AB22146				AB22147				AB22148		İ	
Date of Collection		04/21/99				04/26/99	1		- 1			04/26/99				04/26/99				04/26/99	1		1
Units	1	ug/L	ļ	1		ug/L	- 1					ug/L				ug/L	i		. '	ug/L			
Analyte		Result	Q	Val	Com	Result		١ ،	/al	Com	1	Result	, Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Perchlorate		5	U			5	ι	ī				5	U			5	U	•	T	5	U		

Q-Laboratory Data Qualifiers

Val-Validity, Refer to Data Qualifiers in Table 1B

Com-Comments, Refer to the Corresponding Section in the Narrative for each letter

N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc. - Field Duplicate Pairs FB-Field Blank, EB-Equipment Blank, TB-Trip Blank BG-Background Sample

Station Location	MW07B				MW07A		Ţij		MW02A	T		MW20B	-T	T -	[
Sample ID	50023	1	i		50022				50010			50011			1
Lab Sample 1D	AB22149	Í	} }	1	AB22150	1			AB22151			AB22152		1	
Date of Collection	04/26/99		!		04/26/99				04/27/99			04/27/99		1	
Units	ug/L		.		ug/L	1			ug/L			ug/L			1
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val Com	Result	Q	Val	Com
Perchlorate	5	U			5	U			5	U		. 5	U		

Q-Laboratory Data Qualifiers

Val-Validity, Refer to Data Qualifiers in Table 1B

Com-Comments; Refer to the Corresponding Section in the Narrative for each letter

N/A-Not Applicable, NA-Not Analyzed

Station Location	Method Blank				N/A
Sample ID	LRB		l i		QL
Lab Sample ID	AB22141		!		N/A
Date of Collection	N/A		:		N/A
Units	ug/L		Ì	Ì	ug/L
Analyte	Result	Q	Val	Com	Result
Perchlorate	5	U			5

FD1, FD2, etc. Field Duplicate Pairs FB-Field Blank, EB-Equipment Blank, TB-Trip Blank

BG-Background Sample

Filename: 99113C.Cl04.123

#### TABLE 1B

## DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," February 1994.

- U The analyte was analyzed for, but was not detected above the level of the reported value. The reported value is either the sample quantitation limit or the sample detection limit for all the analytes except Cyanide (CN) and Mercury (Hg). For CN and Hg, the reported value is the Contract Required Detection Limit (CRDL).
- L Indicates results which fall between the sample detection limit and the CRDL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The associated value is an estimated quantity. The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.
- R The data are unusable. The analyte was analyzed for, but the presence or absence of the analyte can not be verified.
- UJ A combination of the "U" and the "J" qualifier. The analyte was analyzed for but was not detected. The reported value is an estimate and may be inaccurate or imprecise.

# INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. <u>R99S30</u>	_LABORATORY	<u>R9</u>			
SDG NO. <u>99113C</u>	_SITE NAME1	Newmark Source OU Superfund			
SOW N/A	_REVIEW COMP	PLETION DATE January 26, 2000			
REVIEWER <u>DataVal</u> , Inc. REVIEWER'S NAME <u>Lisa Norosky</u> , <u>DataVal</u> , Inc.					
NO. OF SAMPLES 19 WATER SOIL OTHER					
		Perchlorate			
1. PRESERVATION AND HOLDI	<u>o</u> _				
2. CALIBRATION		<u>o</u> _			
3. BLANKS		<u>O</u>			
4. ICP INTERFERENCE CHECK S	SAMPLE (ICS)	N/A			
5. LABORATORY CONTROL SA	MPLE (LCS)	<u>O</u>			
6. DUPLICATE ANALYSIS		<u>O</u>			
7. MATRIX SPIKE ANALYSIS	<u>O</u>				
8. METHOD OF STANDARD AD	DITION (MSA)	N/A			
9. ICP SERIAL DILUTION		<u>N/A</u>			
10. SAMPLE QUANTITATION		<u>O</u>			
11. SAMPLE VERIFICATION	<u>O</u>				
12. GFAA ANALYTICAL SPIKE	<u>N/A</u>				
13. OVERALL ASSESSMENT	<u>O</u>				

O = Data have no problems or problems that do not affect data quality.

X = Data are qualified due to minor problems.
 M = Data are qualified due to major problems.

Z = Data are unacceptable.

N/A = Not Applicable.

TPO ACTION: None.

TPO ATTENTION: None.

AREAS OF CONCERN: None.